Re: Park and Planning Commission letter to TTFCG

Jane Lawton called the meeting to order and apologized for the delay in distributing the meeting agenda provided by the carriers. She also noted that she had received correspondence from the People's Counsel and two citizens requesting that the meeting be postponed until they could attend to hear the carriers' presentation and noted they complained because of the short notice they received about the date and time of the meeting. She noted they had received the agenda with only one day's notice, as did all of the industry representatives at today's meeting. She stated that she did not believe it was appropriate to cancel the meeting, but she did agree to conduct the meeting in a manner so as not to discuss any specific application which may impact the citizens or would be of interest to the People's Counsel. Ms. Lawton then turned the meeting over to Ed Donohue, who, along with several other carriers, had requested this meeting.

Ed Donohue stated that the purpose of the meeting was not about any particular application, even though the letter from Mr. Hussmann was prompted by the Board's review of the AT&T application for a new monopole on Brink Road. He added that he would ask all of the carriers speaking today to keep their comments focused on the broader issues and not on any particular application. He noted that the Park and Planning Commission issue was a matter of great interest to the Industry as evidenced by the turnout of so many carriers, their representatives, and their engineers. He then yielded the floor to Jim Michal, who would give introductory remarks.

Jim Michal stated that the primary concern of the Industry was that the questions raised in the Board's letter implied that the Park and Planning Commission or the Board of Appeals or the TTFCG would become involved with the carrier's system design. He stated that he did not believe that any of those agencies had the authority to go beyond what the TTFCG is presently doing. He stated that the current process seemed to be working very well and that many of the applications submitted were for co-location, which is what the emphasis of the process is from the carriers' perspective, and the carriers' record for co-locating on existing structures was very good.

He stated that the industry's view was that none of the County agencies had authority to become involved with the technical design of the carrier systems, the technology used to deploy the services, or the issues regarding coverage within the community. In addition, he stated that the industry did not believe the County agencies had the authority to govern even alternatives such as replacing one new monopole with two other monopoles as an option to serve the same area. He stated that the code was clear that the Board of Appeals had authority to deal with the specifics of each application it reviewed based on the details of that application alone.

He stated the Board had the authority to deny a Special Exception based on the merits of each application and not on some other alternative it may deem appropriate. He stated that only the carriers could make the business decision regarding whether they wished to change their application to address the technology, coverage requirements, etc. He likened the cellular Industry to any other business that provided services in the County, noting that the Board of Appeals and the Park and Planning Commission did not have the authority to make business decisions for those businesses. He stated that the regulations are clear that the main purpose of the TTFCG is to focus on attaining co-location and to encourage the land owning agencies to make their property available for location of new facilities.

In conclusion, he stated that the industry believed that it was not only appropriate but helpful for the County to engage in those kinds of activities, but to go further than that was beyond their authority and raised serious legal questions he believed preempted the County's ability to do more than the TTFCG's current process.

Jane Lawton noted that she asked the Tower Coordinator to independently meet with the engineering staff of each carrier to obtain information which would help in reviewing the carriers applications and to better understand the technology each carrier has implemented. She stated that the TTFCG members did not wish to replace the judgment of the Tower Coordinator related to the technical aspects of an application, but did want to be fully informed of the technical aspects of each carrier's service. She stated that according to the Hussmann letter, it appeared that the Park and Planning Commission was unsure how to deal with some of these technical issues as well, but stated she did not expect any action to be taken based solely on today's discussion. She stated she did not have a problem with the carriers' claim that there was no authority to suggest the use of several microcells in lieu of one new monopole. Judy David, of the Park and Planning Commission, commented that although only Mr. Hussmann signed the letter, it should be taken as representing the opinion of the full Board. Ms. Lawton stated she understood that was the case and that the Board's letter was only one issue being examined by the County. She noted that Marilyn Praisner was interested in considering legislative changes as a result of not only the Board letter but also several letters from citizen groups and in other areas where there was interest in revising the code. She added that she could schedule a presentation for the Board regarding the current TTFCG process and the duties performed by the Tower Coordinator. She noted that it might be in the carriers' interests to give a presentation to the Board also, just as they were doing with the TTFCG today. Ms. David stated that would be helpful for the Board, and agreed that the Board was unclear as to how to address these issues and that the Park and Planning Commission staff had favorably recommended the application which generated the letter. Ms. Lawton added that any changes would undoubtedly be accomplished by legislative changes and she was sure that process would be a fully open and public process, as there is great interest regarding tower siting in the community. She stated she believed that the County had established a good and cooperative process and it has been quite

successful to date.

She then turned the meeting over to Ed Donohue, who introduced AT&T engineer Chris Scott to explain microcells.

Mr. Scott distributed a handout which discussed microcells from AT&T's perspective. Mr. Scott summarized the information contained in the handout, emphasizing that microcells cannot replace macrocells. He also noted that the equipment boxes used for microcells could not contain the supporting electronic gear which enables macrocells to provide the high quality of voice transmission and the breadth of coverage provided by a macrocell. He stated that the smaller equipment apparatus meant reduced transmissions and more limited capacity. He stated that in urban areas, microcells were used as capacity enhancement measures when macrocells could not be placed any closer to one another to fill in minor gaps or to increase system capacity. He stated that microcells were used in dense urban areas to cover very small areas of pedestrian traffic and noted that was one of the intended purposes for microcell use. He stated that macrocells have a greater capacity to pick up a weak signal, which is characteristic of the capability of a small hand held transmitting device in a cell phone. The Verizon engineer added that a macrocell uses multiple antennas to improve reception of signals from small hand held transmitters while a microcell typically has only one antenna per sector. He stated microcells work in downtown areas because of the close proximity of the cell phone to the transmitter, but emphasized that the area of coverage was quite limited, especially when compared to the area that could be serviced by a macrocell in a more suburban or rural area.

Pat Hanehan asked why increasing the number of microcells in a suburban or rural environment could not replace a macrocell. Mr. Scott replied multiple microcell use could replace a macrocell but the cost would be prohibitive. Ed Donohue added that in addition to the cost, it takes as long or longer to site a microcell. For example, it has taken AT&T a year and a half just to establish one microcell on River Road. He stated that despite the cooperation of PEPCO in permitting the attachment of AT&T equipment boxes and antennas to its pole on River Road, even that minimal facility raised community objections and the cell had to be relocated to yet another spot before it could be successfully established.

Ed Donohue stated that in addition to the increased cost, the length of time to site a microcell facility along a roadway, and the service quality issues related to microcells in these types of applications, there are not always existing structures to which microcells can be attached. He noted that PEPCO utility poles are typically located along the main roads where aerial plant exists, but off of the main roads the utilities are often run underground so there are no utility poles to attach antennas to. Mr. Donohue then asked M.G. Diamond to comment on Verizon's experience with microcells.

Mr. Diamond stated that under current law, an applicant can apply for a new monopole without proving it could not provide service with the use of multiple microcells or some other alternative method. He stated that Verizon had used microcells primarily

consistent with their intended purpose, to provide in-building coverage for interior enclosures such as stadiums, office buildings, or malls. He stated that Verizon, which uses CDMA technology, had performed extensive field tests of external microcells, which Verizon defined as a very small macrocell. He noted that because of the CDMA technology, the equipment cabinets for a microcell were almost as large as those for a macrocell. Consequently, if a utility pole could be used for the antennas there would still be a need for a large ground space at the base of the utility pole. He noted that this would require two leases for Verizon; one with the pole owner and one with the property owner. He stated that to attach to utility poles, in most cases this would mean placing equipment in a front yard which would be objectionable. He stated that Verizon's experience with microcells using the CDMA technology was problematic in cell-to-cell handoffs and that Verizon had tried using outside microcells but eventually dismantled all of them because they simply did not work.

He noted that some people view microcells as simply using shorter towers, but that is not the case. He stated that in rural areas where capacity is not the issue it is in a downtown area, microcells do not work either. He stated that to require the use of microcells in lieu of a taller antenna-supporting structure would be an attempt by the government to control a carrier's business plan and this is a matter that the government should not be involved with.

Mr. Diamond stated that a "repeater station" was another term often used when discussing microcells. He stated that a repeater station is where signals from a macrocell where simply transported via fiber optic lines to a small site where the signals can fill-in specific coverage requirements for small areas such as a dip in the road or an area blocked by obstructions. He stated that a repeater is not a solution to coverage in a rural environment. He added that since dedicated fiber was needed to operate repeater stations, Verizon's policy was to not construct dark fiber for those purposes.

When asked if microcells were being constructed to accomplish what the Board has suggested, the Verizon engineer stated that microcells were designed for in-building, inside coverage such as for stadium or building applications where a signal within the structure was needed.

Kwasi Bosompem added that in a study conducted by the Transportation Policy Board (TPB) of the Council of Governments (COG), a correlation between average daily traffic growth (ADT) and microcells was found. The TPB noticed that as traffic patterns grew, microcells proved less and less effective; so in those environments, microcells did not work. He stated that the group could review the COG 2000/2001 Growth report to obtain results of that study.

Jane Lawton stated that the TTFCG does not recommend alternative methods of technology but does look at existing sites and whether or not there is a gap in signal coverage. She stated she did not believe that the TTFCG should be recommending alternative technologies.

Jim Michal added that these issues become further confounded when one considers 3G, the next generation of wireless services. The Sprint engineer stated that 3G simply added a capacity problem. In response to questions to address 3G, he explained that they would be adding more channels to each location.

The VoiceStream engineer stated that it would take many microcells to cover an area otherwise covered by a macrocell in a rural environment, noting that it would take approximately 70 microcells to cover the same area one macrocell could cover in a 3-4 miles.

Jane Lawton stated she was aware of technological advancements in equipment such as "smart" antennas, and asked why the industry was not using this new type of equipment to address these concerns. Jim Michal noted that there are economies of scale in deployment that are part of a carrier's business plan and that they buy proven technology when purchasing equipment. He stated that, at this point, the newer technologies are not proven and it is not feasible to buy and deploy such equipment until it has demonstrated it can provide the services desired by the carriers.

Ms. Lawton noted that the Board was evidently under pressure to preserve the agricultural preserve areas in the upper county. Deane Mellander added that the poles are along the roads and not in the communities where people want service. Mr. Bosompem added that to deny deployment of facilities in the upper county areas negates policies such as the TDR.

Ms. Lawton stated that she believed that the carriers had made their point about upper county area service and the use of microcells. Michael Ma commented that regarding land use by Special Exception, there are certain findings the Board must make in regard to reviewing the Special Exception application and certain criteria the Board must consider. Dave Niblock stated he did not believe it was the job of the TTFCG to determine if microcells can replace a macrocell, and believed it was up to the industry to decide system design issues.

Bob Hunnicutt noted that other issues in the Hussmann letter (i.e. submission of all application documents to the Board, and recommendations regarding reduced service levels) had not been discussed and asked if anyone wished to address them. Ms. Lawton stated that the TTFCG would continue with its present application review process until changes were made through the legislative process, and that would include removing materials marked confidential from the application documents given to the Board. She stated that the confidential documents typically were RF propagation maps and were not easily understood by the average citizen, anyway. Regarding the reduced coverage comments issue, Dave Niblock noted the carriers would want coverage at 100% if they were asked to prove anything.